Pest Update (August 18, 2010)

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Note: samples containing living tissue may only be accepted from South Dakota. Please do not send samples of dying plants or insect from other states. If you live outside of South Dakota and have a question, please send a digital picture of the pest or problem instead. **Walnut samples may not be sent in from any location – please provide a picture instead**.

Available on the net at:
http://sdda.sd.gov/Forestry/Educational-Information/PestAlert-Archives.aspx

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Current concerns

Fall webworms are on the move and getting bigger. The yellow to brown, tufted larvae less than 1/2-inch long and are just beginning to move outside the nest. The webworm differs from tent caterpillars in time of feeding (spring for tent caterpillars and late summer for webworms) and where they form their nests (interior, near branch crotches, for tent caterpillars and exterior, out on the branches for webworms). The fall webworm favorite foods are cottonwoods, chokecherries and walnut, but almost any hardwood tree species will do. It is a myth that since they are feeding on leaves that will soon drop anyway that no damage is caused – the next month or so is a time of high productive for leaves and the loss of them will leave the tree going into winter with fewer reserves. Control for the larvae is fairly simple when they are small – less than ½-inch – either just tear the nests open and let the predators and parasites after them. Once they become larger, more than ½-inch, carbaryl (Sevin) should be used as a foliar spray. Usually one application is sufficient to kill the majority of the insects.

Mountain pine beetle flight has probably peaked though new attacks may continue for the next few weeks. I was out in the Black Hills on Thursday and the new attacks were quite evident from all the thick pitch-masses alongside the lower trunks (from 3 to 20 feet) of the ponderosa pine trees. Some of the attacks were so heavy that you could actually *hear* the insects chewing away! There is nothing you can do now to "save" an infested tree. While there are very effective insecticides for spraying the bark to prevent attacks (though the applications would have been applied a month ago before the flight begin) there is nothing that can be applied to the tree, applied around the base of the tree or injected in the tree that can kill the beetles as they feed. The only treatment for an infested tree is to remove it before next spring to keep the beetles inside from emerging next summer and attacking new trees.

Why are the leaves turning color? At this time of year I start getting lots of question about why the leaves on a tree are turning yellow or brown. There is no single cause for this color change. It depends on the tree species and the stresses the tree is enduring. This year, due to the wet spring and summer, we are seeing a lot of leaf diseases. Anthracnose is appearing on almost every tree and shrub species, even on plants in which we rarely see the disease. Hopefully next spring will be a little drier and we will not see the leaf diseases as prevalent.

Aphids and scales are also building up populations in many trees at this time of year and they are very common on elms, lindens and maples. The heavy sap loss on these trees is resulting in premature fall color. The leaves on these affected trees typically are yellowing and also sticky due to the honeydew production from the insects. Mites can also result in yellowing leaves. Viruses can also cause leaf discoloration and it is common to find a mosaic on hackberry leaves infected with a virus. They symptom usually show up by this time of year and are often confused with those from herbicide applications.

Information you can use

How many beetles does it take to kill a mature ponderosa pine tree? I was asked this question last week and there is no exact answer. It depends upon the size of the tree and its health. However, within the diameter range of 6 inches (measured at 4.5 feet above the ground) to 15 inches it takes anywhere from 75 to 800 beetles to kill a tree. These adult beetles do not kill the tree unaided. The eggs the females lay along their tunnels will soon hatch and the tunneling of their young, the larvae, will greatly contribute to girdling the tree. The adult beetles also carry a blue-stain fungus with them and introduce the disease into the tree as they burrow through the bark. The blue-stain fungus also contributes to the demise of the tree.

E-samples

I got this great picture sent in by Bob in Lyman County (see next page) of a dwarf Alberta spruce (*Picea glauca* 'Conica'). This is typically a dense conical evergreen but occasionally one or more of the branches will revert back to the species, the white spruce, and begin growing as a "normal' tree. These branches must be removed before they take over the entire dwarf tree and all you are left with is a white spruce! Of course the real question some folks might be wondering is how a dwarf Alberta spruce is growing in Lyman County anyway! This is not considered a particularly hardy or tough dwarf conifer and to have three growing there is unusual in itself.

Samples received

Clay County **This is a transplanted tree that is growing just fine but they want to know what it is.**

The tree is a mulberry (*Morus alba*). Bird will "plant" the tree just about anywhere. Mulberry is an unusual tree in that there are separate sexes; a tree is male or female, not both as occurs in most other fruit tree.

Clay County **Is this hackberry nipple gall?**

Yes the "bumps" on the leaves are the galls. However, the gall is not responsible for the dieback in the tree. We did notice a number of hackberries that did not leaf out near the tops this spring and this may be due to the late frost.

Clay County **These are Black Hills spruce that were planted in 2007. They lost 3 of the 23 trees that were planted.**

Only losing 3 trees is actually fairly good. I often see a failure rate of seedling spruce in a windbreak near 20 percent so the lost of only 13 percent is not too bad. The short needle length and stunted growth on the seedlings submitted as a sample are common symptoms of transplant shock. I was not able to find any signs of a disease or an insect problem.

Faulk County **Joan brought these seeds in and would like to know what tree they are from. The seeds are in beautiful pink clusters.**

These are seeds from a Tatarian maple (*Acer tataricum*). The Tatarian maple, and its close cousin, the Amur maple (*A. tataricum* spp *ginnala)*, are both noted for their attractive seed crop. This is more common on the Tatarian maple

than the Amur maple and there are even a few cultivars, such as 'Hot Wings' that are sold for this interesting late summer color display.

Hughes County **What were the results on Wade's Austrian pine tree?**

I suspected pine wilt when I stopped to look at the trees but the "cookies" sent in did not contain the pine wilt nematode. I'll have to stop by again in September to further investigate the decline.

Pennington County **What might be the problem with this maple tree?**

The problem was not verticillium wilt though there was some green showing in the sapwood. The odd splits in the bark I often see with hail damage. Is this a possibility? If not I'd like to examine the tree on my next trip out to the area. The insects sent in the bag were crushed too much to identify, however, they were NOT mountain pine beetles.

Yankton County **Lots of samples!**

The samples submitted from Dennis are clearly showing symptoms of flood injury. This is common with fruit trees as these species do not tolerate flooding for any length of time.

The leaf and twig submitted from Helen's tree actually has two different, though closely related, pests. The "bumps" on the leaves are from the hackberry nipple gall psyllid and the damaged buds are due to feeding by the hackberry budgall psyllid. The bud gall damage will result in shoots that may have some open spots where the leaf buds were killed but otherwise do little injury to the tree. There is no effective control for either insect.

Glenda's tree is a Japanese tree lilac.

There are lots of leaf diseases on cherry at this time of year. In fact it is hard to find a cherry leaf without some spotting! The twig submitted by Ed is also a cherry and it is showing symptoms of leaf spot as well. There are several fungal pathogens that create similar symptoms on Prunus and none are usually a serious threat to the tree, only some minor twig dieback and leaf browning.